

Chapter- 2

Maps

STUDY NOTES

Let's Learn

The Globe and Maps

The Globe

The globe is a small model of the Earth. It is the most accurate way of looking at the size, shape and location of places on the Earth. It is the most accurate three - dimensional representation of the earth. Globe shows the continents and oceans accurately.



But it has some drawbacks. Like:-

- Only a part of the earth can be seen on a globe, at one glance.
- All details can not be marked on a globe.
- A globe is difficult to carry around.

To avoid these problems, we normally use **maps** instead of a globe.

What is a Map?



The origin of the word 'map' is from latin word 'mappo' which means a napkin. A map is a drawing of the Earth's surface, or a part of it, on a flat surface, such as a sheet of paper. Maps are one of the oldest forms of non - verbal communication. Every culture in every part of the world makes and uses maps. All the information about one place can not be put in a single map. Different aspects of a place can be shown in different types of maps. The art and science of making maps is called **cartography**. A person who makes maps is called a **cartographer**.

Why use Maps?

People use to 'read' maps for different reasons. For example, we often use them when we are travelling to villages, towns or cities that we are not familiar with. News reporters use maps to tell us where things are happening in the world, pilots use them to navigate the skies and fisherman to navigate the seas.

Comparing globes and maps

Globes	Maps
1. A globe is spherical in shape and is a true model of the Earth.	1. A map is a representation of the Earth on a flat surface.
2. A globe shows us the features of Earth as they really are.	2. A map often changes the shape of the features and landmasses.
3. A globe shows us only a part of the Earth at a time.	3. A map can show us the entire surface of the Earth at a glance.
4. A globe is difficult to carry around.	4. A map is easy to carry around.
5. A globe cannot show features of the Earth in great details.	5. A map can show any number of details depending on it's scale.

Different types of Maps

Maps can be drawn to show the whole world, a single continent, a country, a city, your neighbourhood, and even your school. They can be drawn in any size. A book of maps is called an **atlas**. We can find different maps in it. Some of these are as follows:

- **Political map**
- **Physical map**

Political Map



Political maps show the location and the boundaries of different countries. Some of them also show the states within countries.

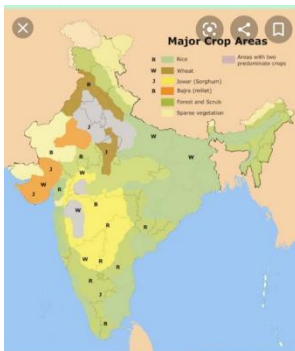
Physical Map



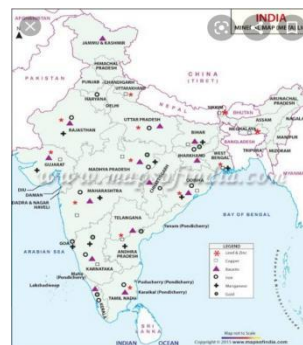
Physical maps show the landforms or physical features of an area, such as mountains, rivers, seas, plains, and deserts.

There are some other kinds of map like:-

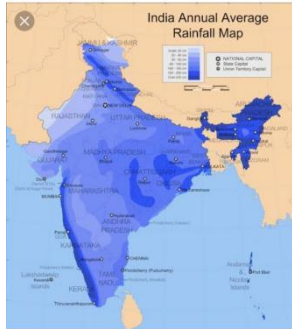
Maps showing-



Crops grown in various places



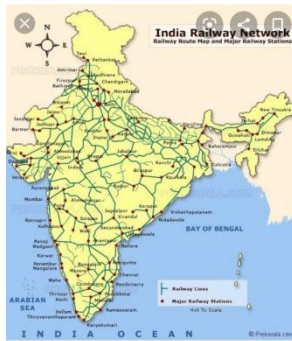
Minerals found in various places



Rainfall in different areas



India National Highways Network



India Railway Network



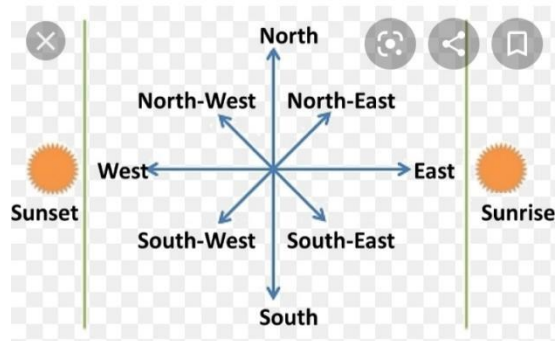
India Airline Network

Elements of a map

Every map has certain elements or features. By studying these elements, we are able to gather information about the area being shown in the map. Some of these elements are:

- **Directions/ Orientation**
- **Scale**
- **Colour**
- **Symbols**

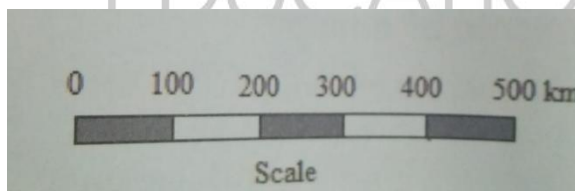
Direction



Directions tells you where the four cardinal directions are on the map i.e north, south, east and west. Most maps are drawn with north at the top. If you know where north lies, it is easy to find south, east and west.

Scale

A map rarely shows the actual distances between places. Distances are shrunk so that the area being mapped can be fitted on a piece of paper. To be able to do this accurately, maps are drawn to a scale. The scale of a map is the ratio between distance shown on the map and the actual distance on the ground. For example, the actual distance between two cities may be 100 km. But on the map it may be shown as 1cm. Then the scale of the map is '1 cm:100 km'. The scale of a map is often shown as a line with distances marked on it. The scale of '1 cm:100 km' is shown here in this way. This is called a linear scale.



Each division in the bar is 1 cm (measured on the map) and indicates 100 km (as shown in numbers just above the bar) on the ground.

Colours

Certain standard colours are used in maps to show features such as oceans, seas, mountains, plains, deserts etc.

Water bodies

Water bodies are always shown in blue. Deep blue shows deep waters and light blue shows shallow waters.

Mountains and highlands

Mountains and highlands are shown in brown and yellow. Dark brown shows high mountains. Light brown shows lower mountains and hills. Yellow shows plateaus.

Plains

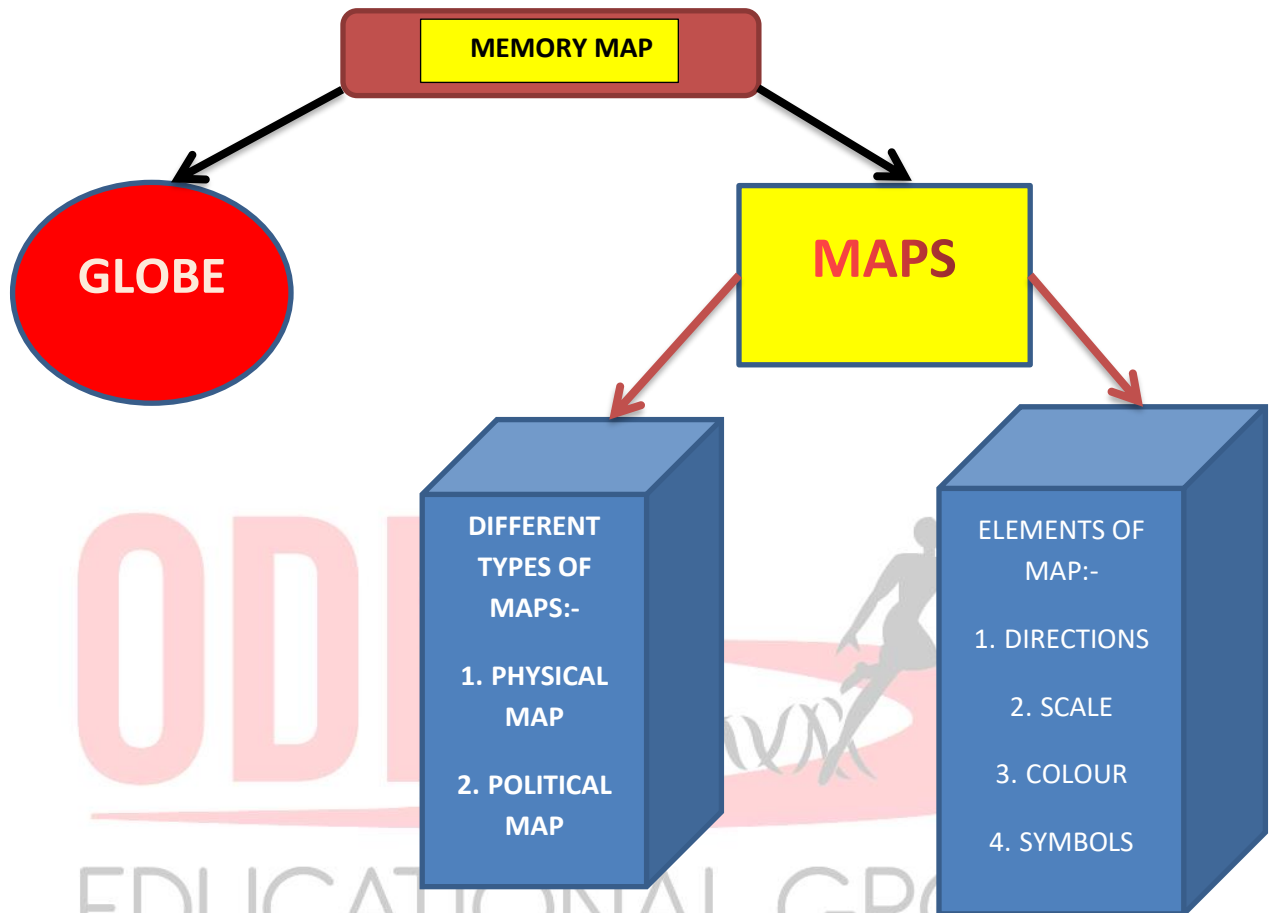
Plains and lowlands are shown in green.

Symbols

To make it easier to show features and places on a map, certain standard **symbols** are used in maps. A symbol is a shape or sign that is used to represent something. For example:- To show a church on a map we can just put a cross at that spot, instead of writing the word 'church' there. Symbols make it easier to read and understand maps. Once we are familiar with these, understanding a map becomes easier.

Standard symbols used in maps

MAP KEY			
	Mountains		Peak
	Highest elevation		Airport
	River		Capital
	Capital		Town/ City
	City		Road
	Town		Railways
	Highway		Path
	Railroad		International Boundary
	Airport		State Boundary
	National Park or Reservation (outline)		District Boundary
			Industry
			Mountain Pass
			River
			Hospital
			Mountains



Let's know more

Changing your Tomorrow



Fill in the blanks

- ✧ Digital maps tell us the best routes to reach our destination with the help of _____.
- ✧ A map which shows the climate of a country is a _____ map.
- ✧ The globe made by Martin Behaim was named _____.
- ✧ Some maps use colours as _____ to represent information.
- ✧ The _____ of a map tells us which area is covered by the map.

Let's Do**A. Fill in the blanks.**

1. An _____ is a book of maps.
2. The ratio of distance on a map to actual distance is known as the _____ of the map.
3. On a map, high mountains are shown in _____.
4. On a map, the use of the colour blue shows _____.
5. Shapes or signs used to represent features on a map are called _____.
6. On a map drawn to a scale of 1 cm : 100 kilometres, a distance of five centimetres on the map means an actual distance of _____.
7. If north is at the top in a map, west is to the _____.

B. Match the columns.

- | | |
|--|-----------------------------------|
| 1. Arrow marked N on map | a. Green |
| 2. 1 centimetre : 1 Kilometre | b. Bridge |
| 3. Plains | c. North |
| 4.  | d. Map scale |
| 5.  | e. Boundary between two countries |

Understand and Answer**C. Answer the following questions.**

1. A globe is the most accurate way to represent the Earth. However, we generally use a map rather than a globe to study the Earth. Why is this?
2. A map of the Earth will have errors in the shape and size of places shown on the map. Why is that so?

3. How is direction usually shown in maps?
4. What do you understand by the term 'scale of a map'?
5. Which standard colours are used in maps?
6. What are symbols?

Teacher's Note

Suppose the Earth was flat and not round. How would our lives have been different? Or would it have made no difference to our lives? Does the shape of the Earth matter at all?

Improve your G.K

- ◆ The science of making maps is called **cartography**.
- ◆ The oldest surviving globe was made by a German cartographer named **Martin Behaim**, in 1492.
- ◆ First 'modern' map printed over **500** years ago.
- ◆ The world's best map collection is in **Paris**.
- ◆ Most expensive map was the first to name **America**.

ANSWER KEY

Let's know more

Changing your Tomorrow ▲

Fill in the blanks.

- ✧ Thematic
- ✧ GPS (Global Positioning System)
- ✧ Erdapfel
- ✧ Symbols
- ✧ Title

Let's Do

- A. 1. Atlas
2. Scale
3. Dark brown
4. Water bodies
5. Symbol
6. 500 Kilometres
7. Left

B.1. c. North

2. d. Map Scale
3. a. Green
4. e. Boundary between two countries

5. b. Bridge**Understand and Answer**

C.1. We generally use a map rather than a globe to study the Earth because

- It is easy to carry a map around.
- A map can show the entire surface of the Earth at a glance.
- A map can show any number of details depending on its scale.

2. A map of the Earth will have errors in the shape and size of places shown on the map because we cannot flatten out the Earth's surface and show it accurately.

3. Usually maps are drawn with north at the top. Most maps indicate North with an arrow marked N. If you know where north lies, it is easy to find south, east and west. If north is at the top, then south is at the bottom, east is to the right, and west to the left.

4. Scale of a map shows the ratio between distances on a map to the actual distance on the ground.

5. Standard colours used in maps are:- Blue, brown, yellow and green

- Deep blue shows deep waters.
- Light blue shows shallow waters.
- Dark brown shows high mountains.
- Light brown shows lower mountains and hills.
- Yellow shows plateaus.
- Green shows plains and lowlands.

6. A symbol is a picture or sign used in a map to represent something from the real world. Colours are also used as symbols. The key or legend explains what each symbol stands for.

